

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of :  
Toshikazu NAKAMURA et al. : Mail Stop: PCT  
Serial No. NEW : Attorney Docket No. 2006\_0825A  
Filed June 15, 2006 :

GLYCOSYLATION-DEFICIENT  
HEPATOCYTE GROWTH FACTOR  
[Corresponding to PCT/JP2004/018719  
Filed December 15, 2004]

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

THE COMMISSIONER IS AUTHORIZED  
TO CHARGE ANY DEFICIENCY IN THE  
FEES FOR THIS PAPER TO DEPOSIT  
ACCOUNT NO. 23-0975

Sir:

Pursuant to the provisions of 37 CFR 1.56, 1.97 and 1.98, Applicants request consideration of the references listed on attached form PTO-1449 and any additional information identified below in paragraph 3. A legible copy of each reference listed on the Form PTO-1449 is enclosed, except a copy is not provided for:

- ☐ each U.S. Patent and U.S. Patent application publication;
- ☐ each reference previously cited in the international application PCT/\_\_\_\_\_; and/or
- ☐ each reference previously cited in prior parent application Serial No. \_\_\_\_\_.

1a. [X] This Information Disclosure Statement is submitted:

within three months of the filing date (or of entry into the National Stage) of the above-entitled application, or

ATTACHMENT C }

before the mailing of a first Office Action on the merits or the mailing of a first Office Action after the filing of an RCE,

**and thus no certification and/or fee is required.**

1b. ☐ This Information Disclosure Statement is submitted

after the events of above paragraph 1a and prior to the mailing date of a final Office Action or a Notice of Allowance or an action which otherwise closes prosecution in the application, and thus:

(1) ☐ the certification of paragraph 2 below is provided, **or**

(2) ☐ the fee of \$180.00 specified in 37 CFR 1.17(p) is enclosed.

1c. ☐ This Information Disclosure Statement is submitted:

after the mailing date of a final Office Action or Notice of Allowance or action which otherwise closes prosecution in the application, and prior to payment of the issue fee, and thus:

**the certification of paragraph 2 below is provided, and**

**the fee of \$180.00 specified in 37 CFR 1.17(p) is enclosed.**

2. It is hereby certified

a. ☐ that each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the Statement, or

b. ☐ that no item of information contained in the Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to the knowledge of the person signing the certification after making reasonable inquiry, was known to any individual designated in §1.56(c) more than three months prior to the filing of the Statement.

10/582973

AP3 Rec'd PCT/PTO 15 JUN 2006

3. ☐ Consideration of the following list of additional information (including any copending or abandoned U.S. application, prior uses and/or sales, etc.) is requested.
4. For each non-English language reference listed on the attached form PTO-1449, reference is made to:
- a. ☐ a full or partial English language translation submitted herewith,
  - b. ☒ the International Search Report (in the English language) submitted herewith,
  - c. ☒ the concise explanation contained in the specification of the present application at pages 5 and 6,
  - d. ☐ the concise explanation set forth in the attached English language abstract,
  - e. ☒ the concise explanation set forth below or on a separate sheet attached to the reference:
- JP 7-508420 corresponds to WO 93/23541.
5. ☐ A foreign patent office search report citing one or more of the references is enclosed.

Respectfully submitted,

Toshikazu NAKAMURA et al.

By Warren M. Cheek, Jr.

Registration No. 33,367

Attorney for Applicants

WMC/asd  
Washington, D.C. 20006-1021  
Telephone (202) 721-8200  
Facsimile (202) 721-8250  
June 15, 2006

10/582973

Sheet 1 of 2

INFORMATION DISCLOSURE STATEMENT

AG2 Rec'd PCT/PTO 15 JUN 2006

FORM PTO 1449 (modified)

U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICELIST OF REFERENCES CITED BY APPLICANT(S)  
(Use several sheets if necessary)

Date Submitted to PTO: June 15, 2006

ATTY DOCKET NO.  
2006\_0825ASERIAL NO.  
NEWAPPLICANT  
Toshikazu NAKAMURA et al.FILING DATE  
June 15, 2006

GROUP

## U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	AA						

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO	
	AB	93/23541	11/1993	WO			correspond to Ref. AC	
	AC	7-508420	9/1995	JP				
	AD							
	AE							
	AF							

## OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)

	AG	R. Hofmann et al., "Scatter factor is a glycoprotein but glycosylation is not required for its activity," Biochim.Biophys..Act., 1992, 1120(3), pp. 343-350
	AH	K. Miyazawa et al., "Human hepatocyte growth factor (hHGF), mRNA, complete cds.," Database GenBank accession No.M29145, November 8, 1994 (11-8-94)
	AI	K. M. Weidner et al., "Evidence for the identity of human scatter factor and human hepatocyte growth factor.," Proc. Natl. Acad. Sci. U.S.A., August 1991, 88(16), pp. 7001-7005
	AJ	H. Hara et al., "Structural study of the N-linked oligosaccharies of hepatocyte growth factor by two-dimensional sugar mapping," J. Biochem. (Tokyo), 1993, Vol. 114, No. 1, pp. 76-82
	AK	P. Bellosta et al., "Cleavage of K-FGF produces a truncated molecule with increased biological activity and receptor binding affinity," The Journal of Cell Biology, Volume 121, 1993, pp. 705-13
	AL	J. Aikawa et al., "Asparagine-linked glycosylation of the rat leukemia inhibitory factor expressed by simian COS7 cells," Biosci. Biotechnol. Biochem., 1998, 62(7), pp. 1318-1325
	AN	

EXAMINER

DATE CONSIDERED

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include cop. this form with next communication to applicant.

## INFORMATION DISCLOSURE STATEMENT

FORM PTO 1449 (modified)

U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICELIST OF REFERENCES CITED BY APPLICANT(S)  
(Use several sheets if necessary)

Date Submitted to PTO: June 15, 2006

ATTY DOCKET NO.  
2006\_0825ASERIAL NO.  
NEWAPPLICANT  
Toshikazu NAKAMURA et al.FILING DATE  
June 15, 2006

GROUP

## U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	BA						

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
	BB						
	BC						
	BD						
	BE						
	BF						

## OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)

	BG	S. Bjoern et al., "Human plasma and recombinant factor VII., Characterization of O-glycosylations at serine residues 52 and 60 and effects of site-directed mutagenesis of serine 52 to alanine.)), The Journal of Biological Chemistry, June 1991, Vol. 226, No. 17, pp. 11051-11057
	BH	K. M. Davis-Fleische et al., "Site-directed Mutagenesis of Heparin-binding EGF-like Growth Factor (HB-EGF): Analysis of O-glycosylation Sites and Properties," Growth Factors, 2001, Vol. 19, pp. 127-143
	BI	K. Fukuda et al., "Functional Analysis of Sugar Chains on HGF Based on Deglycosylation," Seikagaku, August 2004, Vol. 76, No. 8, p. 1035, 4P-214
	BJ	E. Adachi et al., "Functional Analysis of Sugar Chains on NK4 (HGF antagonist/angiogenesis inhibitor)," Seikagaku, August 2004, Vol. 76, No. 8, p. 1103, 4P-622
	BK	
	BL	
	BN	

EXAMINER

DATE CONSIDERED